A COMPARATIVE STUDY ON SELECTED PSYCHOLOGICAL CHARACTERISTICS OF NATIONAL VOLLEYBALL PLAYERS

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CHAPTER I

1.1 INTRODUCTION

In recent years, sports psychology has gained significant importance, as mental training is now recognized as essential for achieving athletic success (Weinberg & Gould, 2019). Competing at high levels subjects athletes to intense stress, necessitating not only physical abilities but also strong psychological traits to maintain focus and perform consistently (Jones, 2002). Key psychological factors such as coping skills, motivational orientation, and team cohesion have become major research areas in sports psychology (Nicholls et al., 2009; Eys et al., 2009). This is particularly relevant in team sports like volleyball, where both individual mindsets and team dynamics play a crucial role in performance (Hatzigeorgiadis et al., 2011). Volleyball requires quick decision-making, effective teamwork, and mental resilience, making psychological readiness vital (Mroczek et al., 2013). Skills such as managing pressure, maintaining focus, and collaborating effectively often determine an athlete's success. Understanding how these traits vary, especially between male and female players, can help coaches and psychologists provide better support to athletes (Crocker et al., 2015). Coping skills refer to how athletes handle stress and pressure during competitions. The ACSI-28 is a tool used to assess these skills, focusing on areas like motivation, confidence, and concentration (Smith et al., 1995). Research indicates that strong coping abilities can enhance both performance and overall well-being (Anshel & Sutarso, 2007; Kaiseler et al., 2009). Motivational orientation, based on Achievement Goal Theory, differentiates between task orientation—centred on self-improvement—and ego orientation—focused on outperforming others (Nicholls, 1989; Duda & Nicholls, 1992). While task orientation fosters long-term growth and enjoyment, ego orientation can lead to stress and negative outcomes if not managed properly (Roberts et al., 2007; Lochbaum et al., 2017). Group cohesion, which includes both task cohesion (working towards goals) and social cohesion (building relationships), is crucial for team success (Carron et al., 1985). Strong cohesion enhances communication and performance (Eys et al., 2009). However, there are gender differences in how cohesion is experienced, often influenced by social and cultural factors (Widmeyer et al., 1993; Filho et al., 2014). While physical differences between male and female athletes are well-documented, psychological differences are less explored, especially in India. As female participation in sports increases, it is essential to understand how psychological traits differ by gender (Gill, 2000; Krane et al., 2001). Studying national-level volleyball players offers valuable insights due to the competitive nature of the sport. Research indicates that men and women often exhibit different psychological traits: women may form stronger social bonds but experience more anxiety, while men may demonstrate greater confidence and focus under pressure (Tamminen & Crocker, 2013; Hodge et al., 2012). The ACSI-28 suggests that men may excel in confidence and coachability, while women might perform better in concentration and goal-setting (Smith et al., 1995; Copeland, 2011). Additionally, women often prefer a task-oriented approach, whereas men may lean towards ego orientation in high-pressure situations (White & Duda, 1994). Examining these psychological traits in Indian

volleyball players can help develop tailored mental training and support strategies for athletes. As India increasingly embraces sports psychology, understanding gender-based differences is crucial for creating effective, evidence-based programs (Gould et al., 2002). This study aims to compare athletic coping skills, motivational orientation, and team cohesion between male and female national volleyball players. The findings are expected to address existing research gaps and inform future practices in sports psychology in India.

Volleyball

Volleyball was created in 1895 by William G. Morgan, who was a Physical Director at the YMCA in Holyoke, Massachusetts. The game was initially named "Mintonette," but it was later renamed "volleyball" by Dr. A.T. Halsted after he noticed how players volleyed the ball over the net. Volleyball is played by two teams, each consisting of six players, on a court that measures 18 by 9 meters, with a net height of approximately 8 feet. It is one of the most popular sports in the world, known for enhancing strength, speed, agility, coordination, and quick decision-making. Originally played only at local YMCA centers, volleyball quickly gained popularity across the United States and eventually around the globe, particularly after World War II when American soldiers introduced the game to other countries. The first national championship took place in 1922, and in 1928, the United States Volleyball Association was established. On an international level, the International Volleyball Federation (FIVB) was founded in 1947, with its headquarters in Paris. The inaugural World Championship was held in 1949, and volleyball was included as an Olympic sport in 1964. In Asia, the first continental championship occurred in 1955, with India winning the title.

Volleyball in India

The exact origins of volleyball in India are not well-documented, but it is thought to have been introduced in the early 20th century, likely through young Christian organizations and institutions such as the YMCA College of Physical Education in Madras. This college played a crucial role in promoting the sport nationwide by training physical education teachers who then introduced volleyball in schools, colleges, clubs, and government institutions. Over time, volleyball transitioned from a leisure activity to a competitive sport. The Indian Olympic Association began including volleyball in national championships starting in 1935. The Volleyball Federation of India (VFI) was founded in 1951 in Ludhiana, with E.C. Arora serving as its first President and S.K. Banu as Secretary. The first official national championship took place in Madras, and the event has been held regularly since then. Organizations like the Railway Sports Control Board also became involved, leading to the introduction of junior-level championships. India has a rich tradition of physical culture, as evidenced by ancient texts and archaeological findings from civilizations like Mohenjo-Daro and Harappa, as well as epics such as the Mahabharata and Ramayana. As modern sports developed, the focus shifted from participation and moral development to a more competitive spirit. India's first men's volleyball team competed in the World Cup in Moscow, finishing in 8th place. This experience allowed players to learn new techniques and strategies. In 1955, a Russian team visited India, and Indian players received training from Soviet coach Mr. Golomosov. That same year, India toured China and won the first Asian Championship. In

1958, the Indian team secured third place at the Asian Games in Tokyo. Progress continued with the arrival of Russian coach Mr. Piminov under the Raj Kumari Amrit Kaur coaching scheme, which included training camps in Delhi and matches in Ceylon (now Sri Lanka). In 1961, another Soviet team visited India, and the government established the National Institute of Sports in Patiala (now NIS), which became a key center for coach training. Mr. Piminov, along with Mr. Gurbux Singh and Mr. O.P. Sagar, played significant roles in developing coaching. At the 1962 Asian Games in Jakarta, the Indian team won a silver medal. Since then, Indian volleyball has made steady progress, bolstered by improved infrastructure, coaching, and international exposure.

Athletic Coping Skills

Participation in competitive sports places significant physical and psychological demands on athletes, necessitating effective stress management. While some athletes excel under pressure by employing strong coping strategies, others may find competition overwhelming, which can negatively impact their performance. This variation in stress management often stems from individual differences in coping skills, influenced by early life experiences and youth sports participation (Belem et al., 2014). Elite sports environments are particularly stressful due to factors such as the risk of injury, performance expectations, coaching pressures, and rigorous training schedules. Coping strategies are the deliberate efforts made to handle internal or external stressors, whether by minimizing, tolerating, or resolving them (Belem et al., 2014). Athletes who cope well with adversity tend to maintain emotional stability, a positive outlook, and employ psychological techniques to sustain their performance even in challenging situations (Weinberg & Gould, 2011). According to Lazarus and Folkman (1984), coping involves both cognitive and behavioral efforts to manage demands perceived as exceeding one's personal resources. In sports, athletic coping skills include various psychological tools such as focus, self-talk, relaxation, and goal-setting, which assist athletes in navigating high-pressure situations (Smith et al., 1995). These skills are vital for maintaining consistent performance, regulating emotions, and ensuring psychological well-being. Athletes with well-developed coping abilities often show greater resilience and lower anxiety levels during competitions (Anshel & Sutarso, 2007), while inadequate coping can lead to burnout and diminished performance (Kaiseler et al., 2009). One widely recognized tool for assessing these skills is the Athletic Coping Skills Inventory (ACSI-28), which measures areas such as concentration, confidence, and mental preparation (Smith et al., 1995). Research consistently indicates that athletes who score higher on the ACSI-28 report better performance outcomes and lower psychological distress (Anshel, 2003). In team sports like volleyball, coping skills are crucial not only for individual performance but also for overall team dynamics. Athletes must manage personal stress while also addressing interpersonal demands, such as team coordination and peer support. High-pressure game situations, like prolonged rallies or critical mistakes, challenge an athlete's emotional regulation and mental toughness (Crocker et al., 2015). Studies suggest that volleyball players who effectively manage competitive stress contribute positively to team cohesion and success (Hatzigeorgiadis et al., 2011). Therefore, exploring coping strategies in volleyball

players offers valuable insights into how psychological resilience impacts both individual and team performance.

Team Cohesion

Cohesion is a key concept in sports psychology that has been thoroughly researched and defined over the years. Festinger, Schacter, and Back (1950) described cohesion as the "total field of forces" that encourages group members to stay together. In sports, a team is considered cohesive when its members share strong connections, demonstrate loyalty, and work together towards common goals. The effectiveness of a team is greatly affected by how well players interact with one another. Hall (1960) pointed out that a team's survival and success hinge on its ability to cooperate, foster mutual responsibility, and function as a unit. Conversely, a lack of cohesion can hinder a team's ability to reach its goals and maintain consistent performance. A cohesive team typically has clearly defined roles, shared objectives, a positive identity, mutual respect, and synergy. It thrives on effective communication, collective responsibility, and trust. Research by Pain and Harwood (2008) on youth soccer teams in England found that social and team-related factors were significant contributors to improved performance. Similarly, Senécal, Loughead, and Bloom (2008) discovered that a season-long team-building program focused on goal-setting significantly enhanced cohesion among female basketball players. These studies suggest that well-organized team environments can promote higher levels of cohesion, which in turn positively affects team performance. Team cohesion in sports is generally divided into two dimensions: task cohesion and social cohesion. Task cohesion refers to how well team members work together to achieve shared goals, while social cohesion relates to the interpersonal relationships, emotional connections, and mutual support among teammates (Carron et al., 1985). Although both dimensions are interconnected, task cohesion often has a more direct impact on performance, especially in competitive situations (Eys et al., 2009). Social cohesion, however, boosts team morale and emotional well-being, contributing to long-term unity and athlete satisfaction. Numerous studies have shown a positive link between cohesion and performance in sports. Widmeyer, Brawley, and Carron (1993) found that teams with higher cohesion exhibit better coordination, communication, and resilience. In volleyball, where success relies on precise coordination, quick decision-making, and mutual trust, team cohesion is crucial (Mullen & Copper, 1994). The interdependence required in volleyball, especially during fast rallies and tactical plays, underscores the importance of both task and social cohesion for effective performance under pressure. Beyond performance, cohesion also significantly impacts athletes' psychological health. Cohen and Bailey (1997) reported that athletes in cohesive teams experience lower stress levels and greater satisfaction. They also tend to show higher motivation and psychological resilience. However, maintaining cohesion can be difficult, particularly when team goals are unclear or interpersonal conflicts arise. Carron and Chelladurai (2001) highlighted the need for consistent communication and conflict resolution strategies to preserve team unity. Sports psychologists and coaches must focus on both task alignment and interpersonal relationships to ensure long-term cohesion.

Gender differences also play a role in how athletes perceive and express cohesion. Carron et al. (2002) found that female athletes generally report higher levels of social cohesion, valuing emotional connections and interpersonal support, while male athletes often exhibit stronger task cohesion, concentrating on competitive goals. These differences suggest that strategies to enhance cohesion should be tailored to the gender composition of the team to maximize their effectiveness. In national-level volleyball, where performance expectations are high and competition is fierce, the importance of cohesion becomes even more evident. Understanding how team cohesion manifests among male and female volleyball players can provide valuable insights into psychological readiness, performance consistency, and overall team success. Coaches and sports psychologists can leverage this knowledge to create targeted strategies that foster unity, minimize conflict, and enhance overall team performance.

Task and Ego Orientation

Task orientation is a motivational concept in achievement goal theory that reflects an athlete's focus on personal improvement, effort, and skill mastery (Nicholls, 1989). Athletes with a task-oriented mindset define success as personal growth and view challenges as opportunities to enhance their abilities. This perspective fosters intrinsic motivation, as these athletes find satisfaction in learning and making progress rather than simply outperforming others. Duda and Nicholls (1992) noted that task orientation encourages resilience and ongoing participation in sports, as athletes concentrate on factors they can control, such as effort and strategy, rather than comparing themselves to others. Athletes who adopt a task-oriented approach often demonstrate higher persistence, better emotional regulation, and constructive responses to failure. They are more likely to see mistakes as a natural part of the learning process, which strengthens their mental toughness and lessens the negative psychological effects of setbacks (Roberts et al., 2007). This orientation is linked to lower levels of stress and anxiety, as success is defined individually rather than through social comparison. Lochbaum et al. (2017) highlighted that task-oriented athletes experience greater satisfaction and engagement in their sport, as their motivation is rooted in personal development and enjoyment of the activity itself. In contrast, ego orientation refers to a performance mindset focused on surpassing others and showcasing superior ability (Nicholls, 1989). Ego-oriented athletes assess their success based on their ranking compared to peers and are primarily motivated by external validation. Duda and Nicholls (1992) explained that while this orientation can lead to short-term performance improvements in competitive situations, it often results in increased stress and negative emotions when athletes fail to meet comparative standards. The emphasis on social comparison heightens vulnerability to anxiety, especially in uncertain or challenging competitive environments. The psychological effects of ego orientation are often less adaptive. Ego-oriented athletes frequently experience higher levels of burnout, lower enjoyment, and poorer coping strategies when facing failure (Roberts et al., 2007). When they do not perform better than their peers, they are more likely to experience decreased motivation, self-esteem issues, and disengagement from their sport. Although ego orientation can sometimes boost competitive drive, it often compromises long-term psychological well-being and consistent performance. Research has identified gender differences in task and ego orientations. Studies show that female athletes generally exhibit

higher task orientation, focusing on self-improvement and mastery, while male athletes tend to display stronger ego orientation, emphasizing the need to outperform others (Duda & Nicholls, 1992). These differences can influence how athletes approach training, competition, and teamwork. Female athletes may find motivation in collective progress and skill development, whereas male athletes might be more individually competitive and status-driven, especially in high-pressure situations. In a sport like volleyball, where teamwork and mutual support are crucial, task orientation positively impacts team dynamics. Athletes who prioritize mastery and cooperation are more likely to contribute constructively to team goals, fostering cohesion and communication (Carron et al., 1985). On the other hand, ego-oriented players may seek personal recognition, which can disrupt team harmony and hinder collective performance. Understanding the balance between these orientations and their expression across genders is essential for coaches and sports psychologists aiming to create motivational strategies that support both team cohesion and individual development.

1.2 Statement of problem

The problem of the study stated as **" A Comparative Study on Selected Psychological Characteristics of National Volleyball Players"**

1.3 Objectives of the study

The research work will be carried out with the following objectives in perspective:

1. To investigate the differences in athletic coping skills between male and female national volleyball players.
2. To investigate the differences in task orientation between male and female national volleyball players.
3. To investigate the differences in group environment cohesion between male and female national volleyball players.
4. To compare athletic coping skills among male volleyball players across different playing positions
5. To compare task orientation among male volleyball players based on their playing positions.
6. To compare group environment cohesion among male volleyball players based on their playing positions.
7. To compare athletic coping skills among female volleyball players across different playing positions
8. To compare task orientation among female volleyball players based on their playing positions.
9. To compare group environment cohesion among female volleyball players across different playing positions.

1.4 Research questions

The entire analysis in this chapter has been carried out in order to address the following research issues:

1. What are the differences in athletic coping skills between male and female national volleyball players?
2. What are the differences in task orientation between male and female national volleyball players?
3. What are the differences in group environment cohesion between male and female national volleyball players?
4. What are the differences in athletic coping skills among male volleyball players across different playing positions?
5. What are the differences in task orientation among male volleyball players across different playing positions?
6. What are the differences in group environment cohesion among male volleyball players across different playing positions?
7. What are the differences in athletic coping skills among female volleyball players across different playing positions?
8. What are the differences in task orientation among female volleyball players across different playing positions?
9. What are the differences in group environment cohesion among female volleyball players across different playing positions?

1.5 Hypothesis

1. There will be no significant difference in athletic coping skills between male and female national volleyball players.
2. There will be no significant difference in task orientation between male and female national volleyball players.
3. There will be no significant difference in group environment cohesion between male and female national volleyball players.
4. There will be no significant difference in athletic coping skills among male volleyball players across different playing positions.
5. There will be no significant difference in task orientation among male volleyball players across different playing positions.
6. There will be no significant difference in group environment cohesion among male volleyball players across different playing positions.
7. There will be no significant difference in athletic coping skills among female volleyball players across different playing positions.
8. There will be no significant difference in task orientation among female volleyball players across different playing positions.
9. There will be no significant difference in group environment cohesion among female volleyball players across different playing positions.

1.6 Delimitations

1. The study will be delimited to the male and female national volleyball players only.
2. The study will be delimited to the age from 18-40 years only.
3. This study will be delimited to the top 8 qualified teams of nationals only.
4. This study will be delimited to 80 volleyball players. (40 male and 40 female)
5. This study will be delimited to the following positions.
    - Attacker
    - Blocker
    - Universal
    - Setter
    - Libero
6. This study will be delimited to the selected psychological variables which are as follows:
    - Athletic coping skills
    - Team cohesion
    - Task and ego orientation

1.7 Limitations

1. Certain factors like geographic conditions, training background, availability of sports facilities, diet, and daily routine habits may influence the psychological characteristics of the volleyball players and will be considered as limitations of the proposed study.
2. No motivational techniques will be used to encourage the subjects during data collection. Therefore, any difference in responses due to lack of motivation may be recognized as a limiting factor.
3. As the study will utilize standardized questionnaires, the inherent limitations of such self-report tools—such as social desirability bias or misinterpretation of questions—may influence the responses and will be considered a limitation of the proposed research.
4. The athletes' perception of their own psychological behaviour may differ from actual observed behaviour, which could affect the authenticity of the responses and will be acknowledged as a limitation.
5. The training or coaching techniques adopted by different coaches may influence the players' psychological responses. Since this variation cannot be controlled, it will be treated as a limitation of the study.
6. Lifestyle factors of the athletes, including socio-economic status, religious beliefs, and personal habits, will be beyond the control of the investigator and may affect the outcomes. These factors will be considered as limitations of the proposed study.

Definitions and Explanations of Terms

Sports Psychology
Sports psychology involves applying psychological principles to sports and physical activities to enhance athletes' performance and skill development at all levels (Browne & Mahoney, 1984).

Team Cohesion
Team cohesion refers to how well team members work together towards common goals and maintain positive relationships. Carron et al. (1985) distinguish between two types of cohesion: task cohesion, which is the commitment of team members to achieving group objectives, and social cohesion, which reflects the strength of friendships and social bonds among team members.

Coping Skills
Coping skills are the typical ways individuals handle stress or challenges. Carver et al. (1989) and Endler and Parker (1990) describe coping style as a habitual tendency that affects the choice of coping strategies in stressful situations. Richards (2004) elaborates that coping skills involve consistent patterns of selecting specific mechanisms to effectively manage stress.

Task and Ego Orientation
Task orientation focuses on mastering skills and self-improvement, where success is measured by personal progress rather than comparisons with others. Individuals with a task orientation gain confidence and self-efficacy from their continuous improvement over time (Cox, 2002). In contrast, ego orientation defines ability by how well one performs compared to others. For ego-oriented individuals, self-confidence depends on their performance relative to peers, which can limit their perspective on personal skill development (Cox, 2002).

Volleyball
Volleyball is a team sport played between two teams of six players each, separated by a net. The goal is to score points by sending the ball over the net and landing it on the opponent's court, following official rules.

Positions in Volleyball

- **Attacker (Opposite Hitter):** Positioned near the left antenna, this player is often the team's primary scorer, responsible for delivering powerful and consistent attacks, especially when the pass is not perfect.

- **Libero:** A defensive specialist who plays only in the back row and is easily recognized by a different-colored jersey. The libero can substitute freely for back-row players without formal procedures but is not allowed to serve (FIVB, 2017).
- **Blocker:** Usually one of the tallest players, positioned in the middle front, specializing in blocking opponents' attacks and initiating quick offensive plays near the setter.
- **Setter:** The player who organizes the offense by accurately setting the ball for attackers, typically taking the second touch after a pass to create scoring opportunities.
- **Universal Player:** A versatile athlete who can perform multiple roles on the court, including both attacking and defensive tasks. The universal player adapts to different positions as needed, providing tactical flexibility to the team.

1.8 Significance of the Study

- The findings of the study will contribute to the existing body of knowledge in the field of sports psychology and will be beneficial for players, coaches, and researchers in providing valuable psychological feedback.
- The study will be helpful for self-assessment of volleyball players in terms of selected psychological variables, specifically athletic coping skills, task and ego orientation, and team cohesion.
- The study will assist players in setting realistic and achievable goals during competitive situations by understanding their psychological strengths and weaknesses.
- The results of the study will further help in identifying the influence of key psychological variables on performance, enabling targeted psychological training and interventions.
- The study will shed new light on gender-based psychological profiling in volleyball, opening avenues for further research in the field of sports psychology.
- The study may provide first-hand empirical data regarding the psychological profile of national-level volleyball players, particularly focusing on coping skills, motivational orientation, and group cohesion.
- The study may help in understanding the behaviour of players under various competitive scenarios, which can guide coaching strategies and athlete support programs.

CHAPTER II

2.1 Review of Related Literature

Morales-Sánchez et al. (2022) performed an extensive psychometric evaluation of MenPas 1.0, an online version of the Task and Ego Orientation in Sport Questionnaire (TEOSQ). Their research included a large and varied sample of 2,320 participants aged between 18 and 65, providing strong data for analysis. They used Confirmatory Factor Analysis (CFA) and multi-group invariance testing, which showed that the two-factor structure (task orientation and ego orientation) was consistent across different genders and types of sports (team vs. individual). The reliability measures, including composite reliability and internal consistency, were high, indicating that the instrument is dependable. The authors did acknowledge some limitations, such as technical issues and a bias towards younger participants, which could affect the generalizability of the results. Nevertheless, the shift from paper-based to online formats represents a significant improvement, making data collection more accessible and efficient. Their findings indicate that motivation theories and tools like the TEOSQ can be successfully adapted for digital use, broadening their applicability in sport psychology and research. This study also opens the door for large-scale motivational assessments that are cost-effective and require fewer resources

Baser et al. (2022) examined the motivational factors influencing athletic performance by exploring the relationships between task and ego goal orientations, motivation, effort, and anxiety among 206 student-athletes. The study found that athletes with a task-oriented approach, who focus on personal growth and skill mastery, consistently exhibited higher levels of intrinsic motivation and effort. This was linked to greater persistence in both training and competition. In contrast, ego-oriented athletes, who aim to outperform others, tended to experience higher anxiety, especially when their success was uncertain. The research emphasizes that a task-oriented mindset creates a positive motivational environment that promotes psychological well-being and ongoing engagement in sports. Coaches and sports psychologists are encouraged to foster a mastery-focused atmosphere that values effort and personal improvement over competition with others. This approach can help athletes better manage pressure and anxiety, ultimately improving both their mental health and athletic performance. These findings support motivational theories that advocate for task-oriented goal setting to enhance athlete development

Jakobsen's (2022) study on elite junior hockey players highlighted significant connections between task and ego involvement and the quality of motivational regulation. The research involved 401 athletes aged 14 to 18 and utilized concepts from self-determination theory (SDT) and goal orientation theory to evaluate different types of motivation. The findings showed that task involvement was closely linked to autonomous forms of motivation, such as integrated regulation, which indicates that athletes find personal meaning in their sport participation. In contrast, ego involvement was more related to controlled motivation, where athletes feel pressured to meet external expectations or demonstrate superiority. Moreover, the study found that coaching environments that support autonomy positively influenced task orientation and intrinsic motivation. This suggests that the social environment is vital in promoting healthy motivation among athletes. These results emphasize the need for coaches to create settings that encourage athlete autonomy and mastery goals, which can lead to greater resilience, enjoyment, and persistence. Jakobsen's findings are crucial for youth sports programs that aim to maintain athlete motivation during key developmental stages.

Ballıkaya and Saraç (2021) explored how coping skills relate to competitive anxiety in adolescent female volleyball players, highlighting how effective coping can protect against anxiety symptoms. By using the ACSI-28 and the Competitive State Anxiety Inventory-2, the researchers discovered that athletes with strong coping skills—particularly in areas like confidence, coachability, and focus—experienced significantly lower levels of both cognitive and physical anxiety before competitions. These coping skills served as protective factors, enabling athletes to handle pre-competition stress more effectively. The study emphasizes the importance of developing psychological skills early on to foster resilience in young athletes, as anxiety can adversely affect both performance and overall well-being. The authors suggest incorporating mental skills training into youth sports programs to improve coping abilities and lessen anxiety-related challenges. This research adds to the growing evidence that highlights the essential role of coping skills in maintaining psychological stability and enhancing performance under pressure.

Pagano and Vizioli (2021) recognized the importance of having culturally appropriate tools for assessing motivation, so they adapted and validated the TEOSQ for athletes in Argentina. They worked with a sample of 258 team-sport athletes, who underwent a thorough translation and back-translation process, along with evaluations from experts, to ensure that the language and concepts were accurately represented. Their confirmatory factor analysis confirmed the original two-factor structure of the TEOSQ, showing good reliability for both the task orientation and ego orientation scales. The authors pointed out that task orientation is associated with effort, skill development, and intrinsic satisfaction, while ego orientation relates to competitive comparison and social evaluation. This cross-cultural validation allows researchers and practitioners to reliably assess motivation in Latin American contexts, offering valuable insights into athletes' goal orientation profiles. Culturally adapted tools like this are essential for designing psychological interventions that consider cultural differences

and improve motivational environments. Their research significantly contributes to the global sport psychology field by broadening TEOSQ's use beyond its initial cultural context.

Frost (2021) investigated the long-term effects of team cohesion on athlete satisfaction among 94 varsity volleyball players, examining how cohesion develops and influences psychological outcomes throughout a competitive season. By utilizing the Group Environment Questionnaire, Frost distinguished between two types of cohesion: task cohesion, which refers to a shared commitment to team goals, and social cohesion, which pertains to the quality of interpersonal relationships. Both forms of cohesion were found to positively influence athlete satisfaction, with task cohesion being more closely associated with satisfaction related to performance, while social cohesion was linked to emotional well-being. Importantly, the study revealed that cohesion is dynamic, changing over time due to ongoing interactions and shared experiences. This perspective highlights the need for continuous effort from both coaches and players to build cohesion. Frost recommends incorporating team-building activities and communication strategies that enhance both task and social cohesion to foster team unity, satisfaction, and retention. These insights are especially significant in team sports, where strong social connections can help alleviate stress and promote resilience.

Li et al. (2020) made significant contributions to sport psychology by assessing the Athletic Coping Skills Inventory-28 (ACSI-28) among Chinese athletes from various sports. Their thorough psychometric analysis, which included both exploratory and confirmatory factor analyses, validated a seven-factor model that encompasses important aspects such as coping with adversity, confidence, and mental toughness. The high internal consistency across the subscales indicated that the measurements were reliable. Importantly, the study found that athletes with stronger coping skills were better at regulating their emotions and maintaining consistent performance under pressure. The authors emphasized the need for culturally appropriate adaptations of psychological tools to ensure they remain relevant and accurate for different populations. They also suggested integrating coping skills training into athlete development programs to improve stress management, motivation, and resilience. The findings from Li et al. highlight that coping abilities are crucial not only for immediate performance but also for athletes' long-term commitment and psychological well-being, underscoring their vital role in mental skills training.

Martin and Good's (2015) study provides valuable insights into gender dynamics in team sports by examining how men and women perform and interact in single-gender teams within a simulated cooperative game setting. Their research found that all-female teams exhibited

greater cohesion and member satisfaction, indicating that women may use more collaborative and supportive communication styles that strengthen group bonds. In contrast, male teams tended to adopt riskier and more individualistic play strategies, which may reflect socially learned competitive behaviours. These results support social identity theory, which suggests that group cohesion arises from shared social identities, and gender socialization theory, which explains the differences in communication and cooperation between genders. The findings have important implications for coaching practices; understanding that men and women may need different motivational strategies to enhance team effectiveness can lead to better performance outcomes. Recognizing these gender-specific preferences for interaction and risk-taking is essential when forming teams or designing training programs, particularly in situations where mixed-gender dynamics could influence cohesion and strategy.

Harrington (2015) explored the relationship between goal orientations and enjoyment in male college hockey players, emphasizing how motivation affects psychological well-being. The study utilized the TEOSQ and found that athletes with a high task orientation—who focus on mastery and self-improvement—reported significantly more enjoyment and intrinsic motivation compared to those who were ego-oriented. Ego-oriented players, who are primarily driven by the desire to outperform others, often felt increased pressure, which diminished their enjoyment and heightened the risk of burnout. These findings support existing research that indicates mastery-focused environments lead to better psychological outcomes by promoting internal satisfaction and lowering anxiety. Harrington suggests that coaches should prioritize skill development and effort rather than social comparison to boost athlete motivation and enjoyment. This study enhances our understanding of how motivational climate interventions can help maintain athlete engagement and mental health, particularly in high-pressure competitive settings.

Hoar et al. (2010) conducted an extensive review of coping strategies in sports, analyzing data from over 30 empirical studies to categorize the main coping styles used by athletes. They identified three primary categories of coping: avoidance (ignoring stressors), emotion-focused (managing emotional responses), and problem-focused (actively addressing the source of stress). The review highlighted that emotion-focused strategies, such as positive self-talk and relaxation techniques, are closely linked to improved performance and psychological resilience. The authors also pointed out that effective coping is significantly influenced by contextual factors, including the athlete's personality, the type of sport, and the level of competition. This suggests that a one-size-fits-all approach is insufficient. The review recommends incorporating personalized coping skills training into athlete preparation to enhance stress management and motivation. It emphasizes the dynamic nature of coping processes and the importance of continuous assessment and individualized interventions to support athlete well-being and performance.

Nicholls et al. (2009) created the Coping Inventory for Competitive Sport (CICS), a research-based tool designed to evaluate the various coping strategies athletes employ during competitions. Analyzing a large group of 744 athletes, the researchers identified 10 unique coping dimensions, such as logical analysis, mental preparation, and emotional control. The inventory proved to be both valid and reliable, making it a useful resource for sports psychologists and coaches. The authors discovered that successful athletes often use adaptive coping strategies like goal setting and positive self-talk, which help improve focus, confidence, and emotional management. The findings underscore the importance of mental skills training, emphasizing the need to teach athletes a range of effective coping strategies to manage pressure. Nicholls et al. highlight that understanding individual coping styles allows for personalized interventions that build psychological resilience and enhance competitive performance.

Tiryaki and Cepikkurt (2007) investigated the impact of athletes' attachment styles on team cohesion among 74 female volleyball players in the Turkish premier league. They utilized validated questionnaires to assess attachment and cohesion. Their findings revealed that secure and preoccupied attachment styles were positively associated with social cohesion, suggesting that these attachment patterns foster trust and strong interpersonal relationships among teammates. Conversely, attachment styles marked by anxiety or avoidance (specifically fearful and dismissive styles) had a negative effect on task cohesion, which could hinder effective collaboration and the pursuit of shared goals. This study offers valuable insights into how early relational experiences influence adult interactions within sports teams. The results indicate that coaches should consider athletes' relational tendencies when working to enhance team cohesion and should implement psychological strategies to promote secure attachments. By understanding attachment styles, teams can improve communication, trust, and emotional support, ultimately leading to better performance and greater athlete satisfaction.

Chapter-III

3.0 METHODOLOGY

3.1 Selection of Subjects

For this study, a research scholar will select a purposive sample of top 4 teams of nationals. The research scholar will select a sample of 40 male and 40 female volleyball players.

On the basis of the objectives of the study, the participants were categorised according to their playing positions.

- Attacker
- Libero
- Setter
- Blocker
- Universal

3.2 Selection of variables

Based on literary evidence, correspondence with the expert and the scholar's own understanding the following variables were selected for this study.

The Variables selected for the psychological profile investigation are:

Independent Variables (Grouping Variables)

1. Gender – Male and Female
2. Playing Position – Setter, Libero, Attacker, Blocker and Universal

Dependent Variables (Psychological Characteristics being measured)

1. Athletic Coping Skills
2. Team Cohesion
3. Task and Ego Orientation

3.3 Criterion measures

Variable	Name of tool
Athletic coping skills	**Athletic Coping Skills Inventory-28(ACSI-28) which is developed by Smith et al. (1995)**
Team cohesion	**The Group Environment Questionnaire (GEQ) which is developed by (Albert V. Carron, Lawrence R. Brawley, W. Neil Widmeyer,2002)**
Task and ego orientation	**Task and Ego Orientation in Sport Questionnaire(TEOSQ) which is developed by Joan L. Duda & John G. Nicholls, 1995**

3.4 Procedure for data collection

These volleyball players will be selected from the national coaching camps and tournaments across the country by administering psychological variables like coping skills, task and ego orientation and team cohesion. The schedule of the data collection will be planned in such a way that the subjects' routines will not be disturbed. Information with respect to the collection of data and letters will be issued to coaches and terms authorities well in advance, and date-wise planning for data collection will be prepared for each team separately.

3.5 Administration of tests

Athletic Coping Skills Inventory-28 (ACSI-28)

The Athletic Coping Skills Inventory-28 (ACSI-28), developed by Smith et al. (1995), is a standardized tool designed to measure psychological coping skills in athletes. It consists of 28 items, categorized into seven subscales, each representing a specific domain of psychological coping. The inventory has demonstrated strong internal consistency, with a reported reliability coefficient of 0.86 (Smith et al., 1995).

Each subscale includes four items, and the seven domains assessed are:

1. Coping with Adversity – evaluates an athlete's ability to remain calm and positive during difficult situations and bounce back from setbacks.
2. Peaking under Pressure – assesses how well an athlete performs in high-pressure environments.
3. Goal Setting and Mental Preparation – reflects the athlete's ability to set effective goals and prepare mentally for performance.
4. Concentration – measures the ability to maintain focus during competition and practice, even under distractions.
5. Freedom from Worry – examines the extent to which an athlete avoids overthinking mistakes or external opinions.
6. Confidence and Achievement Motivation – evaluates the athlete's belief in their abilities and motivation to improve.
7. Coachability – assesses how open the athlete is to learning from instructions and receiving constructive feedback without becoming defensive or upset.

The ACSI-28 uses a 4-point Likert scale for responses:

- 0 – Almost Never: The behaviour is rarely or never shown.

- 1 – Sometimes: The behaviour is shown occasionally.
- 2 – Often: The behaviour is frequently displayed.
- 3 – Almost Always: The behaviour is consistently demonstrated.

Some items (specifically items 3, 7, 10, 12, 19, and 23) are reverse scored to ensure response consistency. Scores for each subscale range from 0 to 12, and the total inventory score ranges from 0 to 84, with higher scores indicating stronger coping abilities.

According to Smith et al. (1995), the ACSI-28 not only helps assess mental strengths such as concentration and confidence but also serves as a tool for predicting athlete behaviours under stress, including their likelihood of injury or performance decline. The multidimensional nature of this inventory makes it a valuable instrument in sport psychology research and practice.

Task and Ego Orientation in Sport Questionnaire (TEOSQ)

The Task and Ego Orientation in Sport Questionnaire (TEOSQ) was developed by Joan L. Duda and John G. Nicholls in 1995 to assess athletes' individual differences in goal orientation within the context of sports. The TEOSQ specifically examines the extent to which an athlete is more inclined toward task orientation—focusing on personal mastery and self-improvement—or ego orientation, which emphasizes outperforming others. This measurement tool has been widely utilized in sports psychology research to determine how athletes define success—whether through internal standards of improvement or through comparisons with others (Chi & Duda, 1995; Li, Harmer, Chi & Vongjaturapat, 1996; Newton & Duda, 1993; White & Duda, 1994).

The purpose of the TEOSQ is to assess how athletes perceive achievement in sport settings. It provides insight into an athlete's motivational orientation by identifying whether they interpret success in terms of personal skill development and effort (task orientation) or in terms of being better than others (ego orientation). These orientations also help in understanding athletes' behavior, motivation levels, and psychological responses to competition and performance situations (Duda, Olsen & Templin, 1991; Kim & Gill, 1997).

The TEOSQ consists of 13 items, divided into two subscales:

- Task Orientation Subscale: Includes 7 items focused on assessing the athlete's interest in learning, effort, and mastery of skills.
- Ego Orientation Subscale: Comprises 6 items aimed at evaluating the desire to demonstrate superior ability compared to others.

Before completing the questionnaire, participants are instructed to recall a time when they felt most successful in their sport. They then respond to each item based on that experience. Responses are recorded using a 5-point Likert-type scale, where:

- 1 = Strongly Agree
- 2 = Agree
- 3 = Neutral
- 4 = Disagree
- 5 = Strongly Disagree

After participants complete the questionnaire, a mean score is calculated for each orientation. For the task orientation score, the total points from the 7 task-related items are summed and divided by 7. For the ego orientation score, the total from the 6 ego-related items is divided by 6. This results in a mean score ranging from 1 (low) to 5 (high) for each orientation type.

The TEOSQ is considered a reliable and valid tool in the field of sport psychology for identifying motivational patterns in athletes. It helps coaches, researchers, and sport psychologists better understand athletes' intrinsic and extrinsic motivations and can guide interventions aimed at promoting adaptive goal-setting and mental approaches in competitive environments.

Group Environment Questionnaire (GEQ)

(Carron, A.V., Brawley, L.R., & Widmeyer, W.N., 2002)

The Group Environment Questionnaire (GEQ) was developed to evaluate how individual athletes perceive the cohesiveness within their sports teams. It focuses on four core dimensions of team cohesion:

1. Individual Attraction to Group–Task (ATG-T)
2. Individual Attraction to Group–Social (ATG-S)
3. Group Integration–Task (GI-T)
4. Group Integration–Social (GI-S)

- ATG-T refers to an individual’s personal involvement and feelings regarding the group’s objectives, tasks, and overall productivity.
- ATG-S assesses each member’s feelings about social acceptance, interpersonal relationships, and their social involvement within the team.
- GI-T evaluates the extent to which a player feels that the entire team is united and bonded toward achieving shared performance goals.

- GI-S measures the degree of social closeness and unity that a member perceives within the team from a broader social perspective.

Each of these dimensions reflects either the individual's own connection to the team (ATG-T and ATG-S) or their perception of the team as a whole (GI-T and GI-S). For example, ATG-S items might include sentiments like “Some of my best friends are on this team”, while GI-T might include statements such as “Our team is united in trying to reach its goals for performance.”

The GEQ consists of 18 items, divided as follows:

- ATG-T: 4 items (Items 2, 4, 6, 8)
- ATG-S: 5 items (Items 1, 3, 5, 7, 9)
- GI-T: 5 items (Items 10, 12, 14, 16, 18)
- GI-S: 4 items (Items 11, 13, 15, 17)

Participants respond to each item using a 9-point Likert scale, anchored from "strongly disagree" (1) to "strongly agree" (9).

Scoring Instructions:

- ATG-T (Items 2, 4, 6, 8): Reverse scored → Strongly disagree = 9, Strongly agree = 1
- ATG-S:

Items 5 and 9: Standard scoring → Strongly disagree = 1, Strongly agree = 9

Items 1, 3, and 7: Reverse scoring → Strongly disagree = 9, Strongly agree = 1

- GI-T:

Items 10, 12, and 16: Standard scoring → Strongly disagree = 1, Strongly agree = 9

Items 14 and 18: Reverse scoring → Strongly disagree = 9, Strongly agree = 1

- GI-S:

Item 15: Standard scoring → Strongly disagree = 1, Strongly agree = 9

Items 11, 13, and 17: Reverse scoring → Strongly disagree = 9, Strongly agree = 1

To compute scores for each subscale, the responses to the relevant items are averaged. Higher scores indicate greater levels of perceived cohesion within the respective dimension. This questionnaire is widely used in team sports research to measure both task-related and social cohesion at individual and group levels.

3.6 Statistical techniques

On the basis of the objectives of the study, the following statistical techniques will be used:

- To prepare the psychological profile based on the selected psychological characteristics of national-level volleyball players, descriptive statistics such as mean and standard deviation will be computed.
- To compare the psychological characteristics (Athletic Coping Skills, Team Cohesion, and Task and Ego Orientation) between male and female volleyball players, an Independent Samples t-test will be used.
- To compare the selected psychological variables among male volleyball players based on their playing positions, a one-way analysis of variance (ANOVA) will be used.
- To compare the selected psychological variables among female volleyball players based on their playing positions, a one-way analysis of variance (ANOVA) will also be applied.
- If the F-ratio obtained from the ANOVA test indicates a significant difference, a post hoc test (e.g., Tukey's HSD) will be conducted to determine the paired mean differences among the groups.
- The significance of hypotheses will be tested at the 0.05 level of significance.

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